WITHDRAWN

SCIENCE and RELIGION

As they look to a LAYMAN

JONATHAN RIGDON

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SCIENCE AND RELIGION

AS THEY LOOK TO A LAYMAN

BY

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TO

MY WIFE

ALBERTA RIGDON

WHOSE INTEREST IN THE LECTURES HAS BEEN CHIEFLY
RESPONSIBLE FOR THEIR APPEARANCE IN THIS FORM

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FOREWORD

THE reader of any message needs to know the point of view from which it was written.

First, let me say I have a very strong friendly interest in both Science and Religion, and therefore regard all seeming conflict as due to wrong thinking. I am confident that both are necessary factors in our civilization, or in any civilization, and that any injury done to either would be also an injury to the other, and to civilization itself.

Science and Religion, when considered together, do present a problem. The solution of every problem depends largely upon the clearness with which the problem itself is conceived. This problem above all others concerns the youth of America,—the youth of the world. Every one who

writes or speaks on this subject should feel himself under obligation to eliminate at least a little of the confusion that has accumulated.

In the second place, in this discussion I am not attempting to make even the slightest contribution to either Religion or Science. These contributions have been made, and will continue to be made, by the great masters of their respective fields. I am a teacher and am writing as a teacher to assist any one laboring with the problem to see the line along which the solution lies. And the solution, when it has been reached, will not drop either Science or Religion, but will find a place for both in human thought and human life. The scientist or the preacher who tells students that they must choose which they are to have, that they cannot have both, is throwing obstacles in the way of youth instead of rendering them a service. The science teacher who does it is injuring science, and the religious teacher who does it is injuring

religion, and both are the enemies, unintentional it may be, but none the less real, of those whom they seek to help.

And now even after my book has been written, two perfectly good reasons might suggest themselves why it should not be published: First, it might be urged, *there is a conflict between Science and Religion*, so why waste time in trying to explain it away? With this position I have already made it clear that I am not in sympathy. Second, it may be contended, *there is no conflict between Science and Religion*, so nothing needs to be said. In answer to this I may say, and I believe the reader will bear me out, that there is prevalent to-day, among the most of the young people of the colleges and the churches, the false notion that such a conflict does exist. These same young people, while talking but little of it, are wrestling heroically with the problem and will gladly welcome any assistance that is offered.

A real conflict and a seeming conflict

are very different things to one who sees the difference, but they present precisely the same problem to one who does not see the difference. No real conflict can ever be explained away. If it is it is and that is the end of it. No explanation can remove a real conflict and leave the two conflicting things just as they were. There is nothing to do but to throw away one or the other or both of the two conflicting things. In a real conflict life cannot endure. A seeming conflict is different. It may arise from a misunderstanding of either or both of the two things under consideration. To clear up such a misunderstanding is the mission of the teacher and the motive that inspired this message.

Any science teacher, of course, would look in vain through these pages for a single fact with which he is not already familiar. And just as certainly I would not presume to instruct a religious teacher in his, the greatest of all fields. With at least a partial realization of the tremendous impor-

tance of both their missions, I am hoping that the following pages will hinder the work of neither but help both.

As most of the subject matter of this book has previously been given in public addresses, it is easily possible that in places it may yet sound as if it had been written to be spoken rather than to be read. If in the estimation of any reader these suggestions of the platform in any way impair the message he is at liberty to omit them.

Danville, Indiana
June, 1928.

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SCIENCE AND RELIGION

AS THEY LOOK TO A LAYMAN

Thought and Feeling

From man's point of view, human life is the one thing, the only thing, that is ultimately worth while. In it there are many things, but two tremendously big things, *thought* and *feeling*.

Thought gives us all meaning, settles all our questions, solves all our problems, fights all our battles. No differences can ever be fought out; to end them permanently they must be thought out. In all contention thought is the only tribunal from which there is no appeal. Thought is the only torch that lights our pathway. It is the only guide that can show us our way through the world. Only through thought can one reach his destination or obtain what he needs.

And then it is feeling that provides the springs of all human action. It is feeling that makes one attainment, one achievement, one destination, better than another. It makes every motive, it is the essence of every aim, it is the basis of every choice. We can hardly conceive of a man destitute of feeling. If there ever were such a man, no matter how much he knew, he was incapable of making a choice. Nothing looked better to him than anything else. For him the world had no worth. The poet had him in mind when he wrote:

> A primrose by the river's brim
> Primula flava was to him,
> And it was nothing more.

No matter whether we consider things the most trivial or matters the most momentous, it is feeling that finally fixes their value. Apart from feeling a man would as soon be cold as comfortable. Any kind of a cabin would be as good as a

brown-stone mansion. Rags would be as good as the richest attire, ignorance as good as education, a deficit as good as a balance, poverty as good as riches, enemies as good as friends, idleness as good as toil, pauperism as good as prosperity, failure as good as achievement. It makes no difference to a hungry man whether his dinner is stale bread and cold water or all the delicacies of all the lands, except that the two dinners produce different feelings. A party dress of calico and gingham would be just as good as one made of silks and satins, if the lady wearing them could feel the same. And to take a case the most extreme, but certainly without intending any irreverence, I would not turn my hand over for the difference between the world in which I hope to meet my friends and that other and very different world to which my enemies consign me, if it were not for a sneaking suspicion that I would feel less comfortable in one than in the other. Feeling, then, is the measure of all

value. Thought gives us the world and its meaning. Feeling fixes its worth.

Science is Thought, Religion is Feeling

Now all of Science is thought. Its only concern is meaning. Without thought there would be no meaning. Without meaning man would be blind. He could not find his way. The world to him would be a wilderness black as night. It would be an impossible problem. To its solution there would be no clue. Science, thought, meaning, is a momentous factor in human life. Education cannot stress it too strongly. By high authority we are admonished with all our getting to get understanding.

But with all science, all thought, all meaning, and with feeling absent, nothing would have value. One thing would be as good as another. The sun would be no better than a tallow candle, the stars no better than grains of dust, health no better than disease, progress no better

than regress, success no better than failure, virtue no better than vice, life no better than death. Man with all thought but without feeling would be a worthless thing in a worthless world. Feeling plays as large a part in life as thought and should have as large a place in education.

Religion is feeling. It is life's largest, highest, deepest, and richest field of feeling. A formal definition may not make it any clearer, but I am giving one. *Religion is the feeling that arises when man thinks of his relation to God.* From this it follows, of course, that without the thought of a god, a power that in some way controls man, the feeling would not arise and there would be no such thing as religion. Some prefer to think of religion as something more than a state of mind. To me that is all that it is. The trees and the stars under which we worship are only the appurtenances of religion. The sacred desks, the church buildings, the ceremonies, the organizations, the good deeds that

are done, the sermons that are preached, the prayers that are offered, these are all the expressions of religion or the fruits of religion, but not religion itself. These might all be destroyed or so prohibited that no trace of any of them would be left upon the earth, humanity would be the poorer of course, but religion would not be gone, religion itself would not have been touched. If only we leave in human consciousness the belief that man is the child of God, the conviction of sin, the sense of human weakness, the hope of salvation, the feeling of reverence, the impulse to pray, religion itself is left and will very soon again build up all those appurtenances of religion, expressions of religion, practices of religion, fruits of religion,— that have been destroyed.

Minds Not All Alike

Due partly to hereditary tendencies and partly to their experiences, some minds are ruled almost exclusively and almost

continuously by thought, reason, logic, science. Thomas Henry Huxley seems to have been a man of this type. This phase of his nature shows in everything he wrote. Take for illustration what he said about a liberal education:

> That man, I think, has a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold logic engine, with all its parts of equal strength, and in smooth working order; ready, like a steam engine, to be turned to any kind of work.

When he gave us this classic definition of a liberal education, he thought and wrote only as a scientist. Science was uppermost in his mind and wholly dominated his thought. For this very reason, his definition, classic though it has become, is inadequate because a liberal education concerns more than the intellect, more than thought, more than logic, more than science.

Eleanor Downing is evidently of a different type. I know nothing of her except that she is the author of the little poem entitled *Omega*, which I am taking the liberty of quoting here from *The Catholic World*, New York, March, 1928. Judging her from this poem I should expect her to be as dominantly religious as Huxley is scientific:

Your eyes are strained and weary, little one;
Beyond horizon-rims, you cannot see:
Mine is the sight encompassing the sun,
And Mine the vision of eternity —
Come unto Me!

Your feet have faltered in the bitter race,
And you lie broken by life's agony:
Mine is the strength that swings the stars in space,
That lifted up the cross, that stilled the sea —
Come unto Me!

Your heart, O child, is swept with mounting fires,
Tortured with dreams, with fears that none may free:

Mine is the heart that shelters all desires —
Behold Love's Door flung wide on Calvary!
Come unto Me!

Focus or Fringe?

Religion as we are considering it, that is, as a state of mind, is as nearly universal in human life as any other mark of man. It is an instinct probably not absent from any normal person. Yet it is not dominant in any normal life all the time. Man's varied mental life is so that now one and now another aspect of it is uppermost. In the lives of all of us there are moments when our whole being is bent upon knowledge. We want facts. We want truth. We want understanding. There are also moments when we are concerned less, if at all, about knowledge, and our whole being is asserting that a certain action shall or shall not be performed. Then there are times when beauty means more than everything else. There are yet other times when the religious phase rules so

completely that all other phases are crowded out. This means that in the mental life of any normal man religion is at times in the focus of consciousness, while at other times it is relegated to the fringe.

This infinitely varied nature of man demands equally varied experiences. Otherwise our balance is lost. It is conceivable that there might be a hundred or a thousand men of equal ability no two of whom would have the emphasis or stress placed upon the same aspect of life at the same moment. Our largest educational problem is not to create new powers. This is impossible. No power that we possess is of our making. Our problem is to make the most of, to develop, the powers we have. The largest part of this development is the establishment and preservation of the normal human balance. It would be possible for a man so to stress the religious phase of his life that he would completely unbalance himself. Indeed it

has often been done. This is always a mistake, but it is a mistake of which the civilization of to-day does not seem to be in immediate danger. We are in infinitely more danger of so crowding out the exercise of our religious nature that spiritual life will perish of starvation. This too has been done over and over again. Charles Darwin's father wished his son to be a clergyman. And, as Darwin himself tells us,

> I once intended to be a clergyman. Nor was this intention and my father's wish ever formally given up, but died a natural death.

Through the force of hereditary tendencies he became a scientist. As a result of unbroken scientific study over a period of years, he not only lost all interest in religion and poetry and music, but he tells us that they became positively painful to him. He gave the world the largest biological contribution it has ever received, but he produced it at a tremendous personal sacrifice.

Every man is scientist, poet, lover, philosopher, dreamer, doubter, depending upon what particular phase of his mental life happens to be in the center of the field of consciousness; and his expression varies with his mental states. When sentiment is in the focus and science in the fringe, the most natural thing in the world is for the poet to write,

> In the spring a young man's fancy lightly turns to thoughts of love.

But if science is in the focus and sentiment wholly out of the picture, it is just as natural for the doctor to say,

> In the spring the chief activating gland of the kinetic system, the thyroid, shows a distinct enlargement.

When Shakespeare jests with the fool, pokes fun at Malvolio, or laughs at the lies of genial but boastful and cowardly John Falstaff, his mind is certainly not weighed down with religious considera-

tions. It is equally certain that religious considerations were not absent from his thought when he wrote:

"The precious image of our dear Redeemer,"

"The world's ransom, blessed Mary's son,"

"By the death of him who died for all,"

"I charge you as you hope to have redemption,"

"By Christ's dear blood shed for our grievous sins,"

and

"In those holy fields,
Over whose acres walked those blessed feet
Which fourteen hundred years ago, were nail'd
For our advantage on the bitter cross."

And if these together with scores of other quotations from his writings should leave any one doubting whether the myriad-minded Shakespeare ever did, after all, indulge in religious thinking, the following sentence from the opening paragraph of his "last will and testament" should dispel the doubt:

I commend my soul into the hands of God my Creator, hoping, and assuredly believing, through the merits of Jesus Christ, my Saviour, to be made partaker of life everlasting.

The mind of Robert G. Ingersoll, the great infidel, was certainly not predominantly religious. In the midst of his lecture in "*Some Mistakes of Moses*," or in any of his fiery political debates, it is not easy to point to a sentence or a word that hints at a religious experience. But when he stands over the open grave of his dead brother and speaks that memorable eulogy, how can his touching and eloquent words be interpreted to mean anything else than religious faith and hope? Hear them:

Life is a narrow veil between the cold and barren peaks of two eternities. We strive in vain to look beyond the heights. We cry aloud, and the only answer is the echo of our wailing cry. From the voiceless lips of the unreplying dead there comes no word; but in the night of death, hope sees a star and listening love can hear the rustle of a wing.

The Author's Attitude

On this subject of *Science and Religion* my attitude is one of interest in both fields. For the most part I am thinking of religion in the very broad sense already explained. But if my title were changed to *Science and the Bible* it would not modify greatly what I am writing. These are two fields of truth. All truth is God's truth. The Bible, of course, is his truth. So is Nature. They must agree God is an author. His complete works are in two volumes. Each must agree with the other. Man's thought can easily be inconsistent. Not God's. If we think at all, we cannot rest with the assumption that there is any conflict between what God has said in the Bible and what he has said in Nature.

Man must labor and live under different limitations. At his best, he is only beginning to learn to read, to think, and to speak. When either of God's great books is open before him, he knows only very imperfectly

how to read it. When he reads it, he is never absolutely sure of its meaning. And even if he could be certain of its meaning, he has not the slightest assurance that he would ever be able to get it said so that some one else might not completely misunderstand it. What some preacher says he thinks science means, may be in unalterable conflict with the Bible; and what some scientist says he thinks the Bible means, may be entirely out of harmony with the truth of science. All of which means that one must think several times before he can be sure that he has thought at all. And even then, before he speaks, it would be safer for him to think again. Particularly on the question now before us, if each of us would set for himself the task of finding out what are the truths of the Bible that are indispensable to religion and what if any are the truths of science that concern religion, many of the seeming conflicts and contradictions and probably all contention would vanish. Heat would

disappear and there would be light. But if we continue to go about it in a roundabout way trying to harmonize what every preacher says he thinks science means with what every scientist says he thinks the Bible means, the task will indeed be a long one.

Effort to be Reasonable

In approaching any problem, but particularly this one, every one must be not only serious but reasonable. It is not always easy to be reasonable even when we try. Few of us, possibly none of us, approach the question with an open mind. Any inquiry made with a closed mind might as well not be made. It is so easy to bring with us to the consideration of this problem a certain mind-bent or mind-set that makes reasonableness impossible. The unreasonableness displayed is by no means all on the same side. I once heard a science teacher say that he was too busy in his laboratory, with his molecules and

his microbes, to waste any time on religion. Most of us, I am sure, will accept his words as the expression of a very narrow and very immature view of life. It is not at all improbable that this same science teacher in the statement quoted is unintentionally but none the less certainly discrediting his most highly cherished theory of development. By this I mean that this same man was in all probability an apostle of evolution. See his inconsistency. First he pledges his everlasting allegiance to evolution. Next he proceeds to discredit religion, the highest product that has been evolved.

But not all narrowness and not all littleness is with science teachers. Prof. Conklin, upon hearing a preacher denounce Darwin's works, asked him if he had ever read them. "No, indeed," he replied, "I would not touch one of them with a ten-foot pole." This good man was doubtless devout enough, but if he should retain that mind-set long enough and continue

to strengthen it, it might not be impossible for him to become prejudiced. At all times, we should make an effort to be reasonable.

Science is Explanation

C. H. Ward says, "Science refuses to imagine, refuses to believe or to be content. It is inspired with only one motive: a curiosity to discover what the facts are," and, I think he should have added, "to find out what they mean." Science is all the time seeking facts but its ultimate end is explanation. Of course, it does not always explain, but it always tries. Its failures have greatly outnumbered its successes. It has given the wrong explanation oftener than the right one, but it is never tired of trying. Whoever has experienced the delight of either getting or giving an explanation should be a lover of science. In the pursuit of an education one is constantly coming upon things that need to be explained and is constantly

seeking their explanation. Explanation is almost the whole life of the student. By far the largest part of a teacher's task consists in pointing out the things that need explanation and in stimulating students to seek it. Occasionally it may be that he must give an explanation, but in doing it he benefits his students far less than when he induces them to seek it. Students are helped infinitely more by striving for an explanation they are unable to find than by having one thrust upon them before they care much about it.

In this presentation it is my preference to appeal chiefly to students and teachers. But even if it were not my preference, owing to long-established habits of thought and speech I should probably be obliged to do it anyhow. But feeling the need of explanation and seeking it are by no means confined exclusively to the classroom or to school people. They are present wherever thinking people are present. But certainly an educator, whose whole life

is spent in giving explanation and inducing young people to seek explanation, must be in sympathy with science.

Science Bears Our Burdens

And then entirely apart from the purely intellectual aspect of explanation, science commands the consideration of every thoughtful person for the large part it has played, is now playing, and is yet to play, in human welfare. Even to enumerate its intellectual and emotional contributions would require a bigger book than this one. And when we think of the physical burdens it has lifted from the weak shoulders of weary men and laid upon the willing and uncomplaining and ever-ready shoulders of nature, no man can love humanity and spurn science. Science has lifted the laboring man from the position of a slave to that of a king. It has rendered all kinds of mechanical construction more marvelous than magic. It has made the life of the farmer one of pleasure. It has

made most, — not all, but most, — of the drudgery of the farm as fascinating as play. Some think it has gone too far in this direction for our good. With all our agricultural machinery, work on the farm has become so easy that farm hands are now not to be had unless the farmer is willing to go to the additional expense of erecting a gymnasium in which they may take their necessary exercise.

And not until the very last, but finally, science has lightened woman's load. A long time ago the periodic house cleaning and washing and cooking wore women out. Now, I am told, there is no periodic house cleaning. Instead, at least as we see in the pictures, only a girl dressed as for a reception, with the bejeweled fingers of her lily-white hand gently clasping a mahogany stick that pushes a rosewood sweeper over her velvet rugs so easily that for the sake of her health she is obliged, at the same time, with her other hand and with both her feet, and to the music of her

Edison or her Victrola, to go through the exercises of Walter Camp's Daily Dozen. And again, if we are to believe the pictures in the advertisements, wash day is gone. In its place, we have, as shown in every magazine and daily paper, an electric machine washing the clothes without any attention from the beautiful woman who stands near-by reading a novel and more elegantly attired than our grandmothers ever were at any wedding they ever attended. It is the same thing over again in the preparation of our meals. Thanks to science, cooking is no longer shunned by woman as a disagreeable task. It no longer makes her miss the morning church service. Now on Sunday morning the good housewife has only to throw her meat and potatoes into a pot, her pies, puddings, and biscuits into a pan, drop them into a wooden box, close the lid, turn a button, and go to church. The dinner is always done by the time the sermon is ended, — sometimes long before.

But speaking a little more seriously, it does hardly seem possible that any man quite in his right mind could think lightly or speak disparagingly of any line of thought and activity to which the human race is so deeply indebted as it is to science. Science has solved for man his problem of transportation. With the steam engine, the automobile, and the flying machine it has all but annihilated distance. It permits us to speak across continents as if we were talking to friends in an adjoining room. By means of it we may catch upon a wire, out of the stillness of night, strains of music played or sung thousands of miles away. It has added years and even decades to human life. It has alleviated suffering. It has waged and is yet waging a successful war against disease. It has stimulated our curiosity, it has given us explanation, it has broadened our vision, it has borne our physical burdens, it has lessened our pain, it has added to our enjoyment, it has multiplied the comforts of

human life a thousand fold. And then, greatest of all, it has put its immeasurable and invaluable contribution within the reach of all of us. If one had ten tongues each with the eloquence of Demosthenes and ten lifetimes to speak he could not get adequately said what science has meant, now means, and will continue to mean, to human life.

Religion's Contribution

Then there are other blessings that science cannot bestow, other benefits that science cannot confer. There are other burdens that science cannot bear, other visions that reason cannot reveal. Yet these burdens are more intolerable and these visions more indispensable. You know that I am now speaking of the burden of sin, which every normal man knows that science cannot lift and that he alone cannot bear, — the burden of the consciousness, which every man has, that if left to himself he is lost to eternity, —

the consciousness every man has that unless some power not himself, a power that makes for righteousness, comes to his rescue, life with all its physical achievements, life with all its intellectual achievements, is a stupendous failure. You know that I am now speaking of the vision of a life that is beyond this one, a vision that the senses cannot see, a vision for which the most powerful microscope and the most powerful telescope help as little as the eye that is blind, a vision that reason itself cannot give, and yet a vision without which life in all its physical and intellectual splendor is an illusion.

The Field of Faith

This vision is possible only through faith, the eye through which religion looks. Faith is not reason, reason is not faith; but the two need not in any way be contradictory. Much of our reason rests upon faith and much of our faith rests upon reason. Man wants to see all that

the senses can reveal and to have the reasons for all things that can be explained; but there are also times in his life when he demands to be left alone in that other field, in which only faith can see. What is the reason for faith? In a way, faith is above reason, it is not wholly responsible to reason. Our very being demands it, our life needs it. This is its justification. When the senses have looked as far as they can see and reason has reached its limit, faith seizes the torch of life, holds it higher and carries it farther, till it lets hope see stars that never before were visible. Faith and reason occupy different fields. Faith must never be substituted for fact and reason. When there arises a question that reason can answer faith only obscures the issue. Only a lazy man will take on faith what he might find out through investigation. But when other questions arise, — questions that reason cannot answer, questions the answers to which the needs of life demand, — then

faith has the field. Only the foolish man declares that his beliefs are limited to the sphere of reason. Reason may always legitimately investigate the grounds of faith, but reason is never at liberty to rule faith off the field that she herself has abandoned as beyond her reach. Human life is above both faith and reason. Whenever the needs of man's life demand either, then those needs are its justification. Man is so made that he must see some things and he must know some things; but he must also hope and believe some things that he can neither see nor know. There are times when these hopes and these beliefs are the largest part of life. Indeed there are times when they seem to be the only things worth while.

Sometime ago I called upon a neighbor to pay my respects to him and to express my sympathy for him and his children in the greatest grief that had ever overtaken them. A young preacher from Indianapolis was asked to say the words of con-

solation so much needed. It was by far the most beautiful and the most impressive funeral sermon I had ever heard. The wife and mother, less than forty, had been taken in the very prime of life. She had been a very beautiful woman, — beautiful in form, beautiful in feature, beautiful in spirit, beautiful in every phase of her rich and varied personality. She was gifted with an exceptional mind. She was talented in music. She was accomplished in art. But none of these things did the preacher or those who heard him deem worthy of more than passing notice on this all-important occasion. He told us only of her religion, and of how ambitious she had been to make her life mean more to the church. He told us only of how she had solved life's greatest problem of making her peace with God. He did not mention science. He did not speak of reason. His subject was faith. His only concern was religion. Schopenhauer was right, — "Man is incurably religious."

In my judgment science helps, but it is not the chief cause of man's being religious. The inclination to believe is as elemental, as dominant and as helpful as the urge to know; and faith plays as large and as important a part in life as knowledge does. While faith must never be substituted for knowledge when knowledge is possible, it must be permitted to render its own service in the solution of life's problems. And it does render a real service. So far as scientific knowledge is concerned, the existence of God and immortality is a hypothesis. We do not believe in God and immortality because we have proved their existence. Rather, we continue trying to prove their existence because we believe in them. This religious faith is a spiritual asset that helps tremendously in clearing our vision. It is not intelligence, but without it reason cannot make life intelligible. Reason is within her rights in raising the question as to faith's credentials for sitting in life's council; but the needs of life are faith's

credentials, and life is the one power that is above both faith and reason. Life demands both reason and faith. From these and similar reflections it is clear that the ultimate outcome of our discussion, the ultimate outcome of all discussion, must be, not a victory for science, not the exclusive dominance of religion in our lives, but such a solution as will find places side by side for both reason and faith, both science and religion, in the life of humanity.

Modernism and Fundamentalism

Our contention, if we have a contention, is essentially that between the Modernist and the Fundamentalist. Without espousing either of these causes I would rather attempt the part of a mediator between them. As in most cases of dispute, there is truth and there is error on both sides. If we are to render a service, even the slightest, it must be by pointing out as clearly as may be this truth and this error. The Fundamentalist is evidently

right in holding fast to all old truth, but he seems to me to be wrong sometimes in rejecting new truth that would in no way interfere with the old. The Modernist is right in his enthusiasm for all that is new; but it seems to me that sometimes he is wrong in insisting upon substituting it for the old that is just as true. No man aids in our progress by showing us how far we are apart. A great service will be rendered when some one shows us how insignificant is the dogma that separates us in comparison with the destiny that unites us. If I were obliged to choose between these two contentions, I would class myself as a Fundamentalist who reserves the right to accept all new truth; or, which I think is precisely the same thing, I would class myself as a Modernist who insists upon holding tenaciously to all old truth that has served us throughout the ages and is just as true to-day. Truth is not affected by age.

Difference and Contradiction

Two different things may be contradictory. They often are, but not always. Two very different things may often both be true. One of the most mischievous of fallacies is the assumption that difference always means contradiction. It is unpardonable in a speaker or writer who knows better. Then it is sophistry. Sometimes, however, writers the most sincere may be deceived by it. This self-deceiving reasoning is common enough with uneducated persons and with all loose thinkers, but occasionally we come across it where it is least to be expected. Let me give two illustrations: At the time of his death, Mr. Bryan, on account of his high Christian character, his unquestioned sincerity, his great ability, and his matchless eloquence, was taken as a guide by more young men and young women than any other man in America. And yet, Mr. Bryan so far forgot his responsibility to youth as to

say in one of his great lectures and in his book that "It is better to know the Rock of Ages than the age of rocks." Certainly it is, a million times better; but why should Mr. Bryan so state it as to suggest to a young man that if he knows the one he cannot know the other? Or why should he suggest to a young man that what he finds out about the age of rocks is likely to contradict any of his conceptions of the Rock of Ages? This could not happen. There is no contradiction. One has absolutely nothing to do with the other. A man must hold fast to the Rock of Ages or his life is gone. But so long as he does it, the more he knows about the age of rocks the better. Another illustration: Prof. Edwin G. Conklin of Princeton University is one of the most eminent biologists of our time. His expositions of science are always clear and convincing, but in at least one connection he repeats the fallacy of assuming that two things are contradictory because they are different.

On page 10 of his little book, *Evolution and the Bible*, he says: "As between Evolution and special supernatural creation, we have to choose between two theories or hypotheses." We do not. All creation is special, and all creation is supernatural. It is just as special and just as supernatural if it takes place by the slow process of evolution as if it comes instantaneously and by fiat. Creation has always been and must continue to be beyond the ken of human knowledge. It is a mystery. To human thinking it is a miracle. If a moment ago a thing was not and now is, that is supernatural. We do not make it any the less supernatural by analyzing the one great change into an infinite number of lesser changes, nor by substituting a million centuries for the moment. We do not clear up creation by slowing down the process. The human mind can easily understand that one stage of existence follows another; but it cannot understand the connection

between the stages. It cannot understand how one stage comes from the other. Causation, all causation, is utterly beyond the reach of human reason. We can talk about it, but we cannot think it. That is creation. It is beyond us. It is special. It is supernatural. We have always been accustomed to attributing creation to God. Whether this is satisfactory or not, science has so far not been able to improve upon it. Let us break up the act of creation as much as the facts warrant, but let us not fool ourselves into thinking that the substitution of an infinite number of smaller changes clears up any of the mystery of creation. Each infinitesimal change is as much of a mystery and as much of a miracle as the one big change. If I understand it, what Professor Conklin means to say is that we have to choose between the hypothesis that God made man by evolution and the hypothesis that he did it in some other way, — either of which may be held reverently and in

harmony with all the essentials of religion. If now so far as religion is concerned one of these theories is as good as the other, and one is more satisfactory to science, then that is the one I shall prefer. All that science may legitimately investigate is the process; and, with this, religion need not be much concerned. All that religion cares about is the power that set the process going, and this is entirely beyond the reach of science. From this it appears that whatever contention there may be is due to the fact that either science or religion got out of its field. The admonition to stay at home and attend to one's own business is good, not only for individuals, and, as some of us think, for nations, but also for spheres of thought and activity.

A New Protestantism

On every hand there is evidence that a new Protestantism is struggling to arise within the Protestant churches. Those

of less conservative tendencies are breaking away, not from all of the old but from part of it. The other element is holding fast to all of the old. Both elements are made up of Christian people. Both are sincere. Both are willing to fight for the truth as they see it. The disagreement is not so much between one denomination and another as it is within each and all of the denominations. It is Baptists against Baptists, Methodists against Methodists, and, as we all know, the people of our own belief, whatever that may be, are not all of one mind. In this there is no occasion for alarm. Not even for discouragement. To me this is the best possible evidence that people are thinking, struggling for a new vision. Where there is vision the people do not perish. The protest is not against the spirit. It is against a too literal interpretation. So long as truth is not sacrificed we are in no danger. There can be no danger in breaking away. The more we break away the better, pro-

vided only that we take with us all of the old that is true and essential. There is just as little danger in holding fast to the old. Let us do it. The more tenaciously the better, provided only that we keep our minds always open to new truth. But it is not always easy to know that the new is true, and so it is often difficult to find our way. Unless I am afraid of my own views I will keep my mind open and give due consideration to the views opposed to them. If my views are true, they are indestructible. If they are not true, my best friend is the man who destroys them. No matter which way we turn we are face to face with religious differences. The question, what is truth, is proverbially difficult to answer. Here as everywhere else it is easier to lose our way than to find it. Free and open discussion, not in the spirit of egotism to refute an opponent, but in all humility and sincerity and for the sole purpose of arriving a little nearer the truth, is our best remedy. At first the

outlook may not appear promising. Later it becomes clear that the unrest that is showing itself in religious matters is only a part of the larger unrest that is pervading every sphere of activity throughout the world, — industrial, political, educational, artistic, as well as religious. Some are insisting that the world's industry must find a new basis or fail. The question, Is democracy a success, is often asked, and some thinkers do not hesitate to give a negative answer. The old poetry can no longer satisfy everybody. Some put the "new verse" away above it. A new kind of music and a new order of pictures are contending for supremacy over the old. There is now no field where one can stand in safety without thinking. Every standard is challenged to give a reason for its existence. There never was a time when conventionalities were less regarded. But in all this seeming chaos, it is evident that, more and more, life is tending to express itself in terms of spirit. So long as this

may be said, we may be sure we are not on the downward road. Instead of a warfare between science and religion the two are coming to a better understanding. It is fast becoming apparent that both are only different activities of the same humanity. Both are necessary. Without either human life would be incomplete. When the two are seen in the proper perspective, each will appear as supplementing and reinforcing the other instead of being its enemy. Neither is this difference to be regarded as a warfare of one group against another, nor of one man against another. The only warfare that can be conceived is a warfare of every man against himself, of one phase of his nature against another, for every man is essentially both scientific and religious. Whenever one undertakes to do with one phase of his nature what was intended to be done by another, of course there will be trouble. But this must not be construed to mean that either phase must be suppressed. The ear is not

the eye, the eye is not the ear. Both together cannot do the work of the feet. We need them all. The business of science is to know and explain the world. Here religion has no part but to appropriate the truth that science discovers and makes the most of it. The business of religion is to get itself expressed for the spiritual welfare of humanity. Here science has no part except in so far as by being the handmaid of religion it may aid in this expression.

Science Aids Religion

Every new truth that science discovers reinforces religion and helps further to justify its existence. With every advancement of science, it seems to me, there comes more and more certainty with reference to things religious. If for illustration it should turn out that God has spent millions of years in making the earth ready for man, and other millions of years in bringing him up to what he now is, can

we not all see clearly how inconsistent and worthless the whole thing would be if man at the end of his brief three score years and ten is to have his existence abruptly brought to an end? And again if we are to believe the scientists who tell us that in the head of a single pin there are more atoms than a man could count in 250,000 years, and that every atom in this seemingly simple pin head is in reality a system as intricate and as complex as our solar system, is it not still more difficult to believe that the great world in which we live is without plan or purpose and has merely happened in the accidental clash of the atoms?

Miracles

What has been said so far is equally applicable to any and all religion. Most persons, however, who happen to see this book will find themselves chiefly concerned with the particular religion known as Christianity. Christianity rests not alone

on the basic principle, "*In the beginning God*," which to my thinking is the indispensable requisite to the existence of any religious feeling, but also upon the truth of the spiritual message of the Bible and the divinity of Christ. Neither of these assumptions do I consider myself able to discuss, and they both present great difficulties. Just this word: If the Bible is not what the Christian people of the world think it to be, then we have on our hands the tremendous problem of accounting for its increased and increasing popularity among the great majority of the most enlightened people of the earth and in the face of almost every conceivable opposition. The same word may be repeated with reference to the miraculous birth of our Saviour. To every thinking person a miracle is repugnant. His preference is to explain everything by natural causation. He abhors the superstition and the laziness of attributing to a miracle anything that could be accounted for in the natural

course of events. With this position I am strongly in sympathy. But, when we come upon a fact that declines to be reduced to the ordinary course of events, or when the reduction, if we make it, gives us results more inexplicable than the fact itself, then we have on our hands a real problem. Then we must do with it the best we can. This is often so unsatisfactory that the only consolation we have is that no one else is likely to do better. Let us steer clear of miracles — if we can. But if in shying at one miracle we find ourselves stumbling upon a greater one, then again we must do the best we can. What one does is his own concern. It is an individual matter. No one else can tell him what he is to do. He is the only one who has to live with his own conclusions. Evidently the right to make them and the responsibility for them are his. Dante was not only one of the greatest literary artists of all time and one of the most devoutly religious of men, but he was

also one of the profoundest thinkers of the world. He has four lines that have been helpful to me in determining what attitude I shall take on this very question. In the hope that they may help others also I quote them here. They are from the twenty-fourth canto of Paradiso, lines 104 to 107:

"That all the world should have been turn'd
To Christian, and no miracle been wrought,
Would in itself be such a miracle,
The rest were not an hundredth part so great."

Miracles are as true to-day as they ever were, but they mean infinitely less for Christianity than they did in the beginning. When Christianity was new it doubtless won many converts through belief in miracles, but it is winning very few, if any, to-day in that way. In the beginning, the greatness of the results achieved through miracles inclined people to believe in Christianity. To-day the greatness of the

results achieved through Christianity incline people to believe in miracles.

A miracle is not a thing to be explained. One may believe it or not believe it, but one must not explain it. If a thing is a miracle it is and that is the end of it. Any attempt to explain it is bound to be unfortunate, for it always explains it away. Some preachers to make us see the reasonableness of miracles, remind us that how the universe is poised in space, how the atoms keep their distances in the molecule, how the electrons fly forever with the speed of light around the core of the atom, how the tiny spear of grass sucks its life from the baser elements that are without life and in turn imparts life to the animal, how the urge in the acorn ends in the oak, are all miracles to the mind of man. We must admit it. In the same connection Mr. Bryan used to bring down a storm of applause when he defied any disbeliever in miracles to stand and explain how a brindle cow can eat green grass that she

manufactures into white milk from which the housewife makes yellow butter. But if these things are miracles, then all things are miracles, then there are no miracles. It is better not to explain a miracle. Whether one believes it or disbelieves it is an individual matter. It is each one's own concern. Probably most of us find it easier to accept miracles than to reject them, but we are not at liberty to deny the religion of those who take the opposite view. Some devoutly religious people do not believe in miracles in the sense of events contrary to law. No thinking people believe that anything ever did happen or ever will happen contrary to law. We may not know the law and may not be able to find it out, but there is a law or the thing could not have happened. There can be no objection to our saying, if we wish to do it, that every event the law of which is hidden from us is miraculous; but in the sight of God there are no miracles.

Christianity Not a Timid Religion

Christianity has never been and is not to-day a timid religion. It has always been ready to go to war against anything it regarded as an enemy of religious truth. So far as I know it has been successful in every case where the thing it fought for was really a truth and where it was a truth that concerned itself; and so far as I know it has failed in every case where the thing it fought for was not a truth or when it was a truth that had no bearing upon itself. Christianity may fight, it must fight, for every principle and every practice essential to its own life. When it goes beyond this limit it weakens itself. Christianity must fight for everything in society, in industry, in education, in art, and in politics that is at enmity with religious truth and religious life; but when it goes beyond this and takes to itself the right to say just what pictures shall be painted, what policies shall be held, and what the-

ories shall be taught in the schools, then it is in great danger of getting out of its field.

Each in Its Own Field

Both in its teaching and in its practice Christianity has always tended to be social, and it has succeeded in being infinitely more social than selfish. It is necessary, however, to be constantly on our guard lest enthusiasm for the organization shall cause us to be unmindful of the very thing it was the sole purpose of the organization to promote. The *religious feeling* is the main thing. All other things are incidental. Churches exist only that this feeling may be. All religious work and conduct are but the expression of this state of mind. Many of us all the time and all of us some of the time, look upon the church as an institution for us to get saved in. This is the selfish view. The church is rather an institution in which one by being in may exert a larger influence

than by being out in saving society, — saving it to a forward look, saving it to higher ideals, saving it to nobler aspirations, saving it to a larger, richer, and more abundant life, saving it to a more sympathetic attitude toward the life and teachings of Jesus Christ. Quibbling and wrangling over some theological technicality or over some irrelevant scientific theory that religion knows nothing about and is under no obligation to know anything about is a pitiable waste of energy. With so much war and waste and want and crime and suffering in the world, it is inexcusable in the individuals and the institutions to which have been delegated and which have accepted the chief responsibility for the world's spiritual welfare to waste much time or energy on unessentials. In short, my principle for the solution of the problem before us is that Science and Religion shall each think over again what is its own field and resolve to stay in it instead of wasting its energy in a warfare to

protect provinces that it does not own and that in no way concern its welfare. Or if I may say it a little more plainly, I would have Religion scientifically stay where it belongs and I would have Science religiously attend to its own business. Not that the same man may not have both science and religion. He may. He must. Rather, I am trying to get it said that the man of science should think twice before he denounces any particular faith as out of harmony with his explanation of the facts of nature; and that the man of religion should think more than twice before he imagines that any particular explanation of facts will in any way hinder or disturb the religious faith that his life needs.

Youth and Age

And after all, it is not so strange that a difference should have arisen between Science and Religion. Their ages are so different. When Abel made his sacrifice

he was obeying the commands of an ancient religion, but at that time there was no science. When Abraham was tending his flocks on Judean hills most of his thoughts were on religion that then was old, while all the science that existed was mystery and magic. Religion was old when the Saviour was born, but the wise men of the time, the scientists, were astrologers and soothsayers and magicians. The most accurate statement that can be made about the antiquity of religion is that religion is as old as the mind of man. It is almost as difficult to tell satisfactorily how young science is. In the colleges of to-day no department is stronger, but it was not so yesterday. A little less than a hundred years ago, early in the Harvard presidency of Josiah Quincy, it was suggested that Harvard should break away from the bondage of the "humanities" so far as to include physics in its courses. Quoting from Shakespeare, the venerable president exclaimed, "Throw physic to

the dogs." To the dogs it went, and there remained for many years before Harvard established a department of physical science. The recognition by the colleges of the biological sciences came much later. Not until after the annual report of President Seth Low in 1891 did Columbia establish a department of biology. Religion is very, very old, and Science is very, very young. Why should they not occasionally quarrel? Youth and age are not always congenial. Age can hardly help seeming supercilious when receiving directions from youth, and youth is never able to conceal its contempt for senescence, which it is all too likely to identify with age. Of course, a reconciliation will come, as it always comes, through better understanding. Here, as everywhere, differences will disappear in the light of explanation.

Men Fight Too Much

The instinct to quarrel and fight has doubtless played its part in helping the

savage to establish his superiority over the beast, but it certainly has undue prominence in modern civilization. We are too intolerant. We do not try hard enough to get together. We conceal our likenesses. We magnify our differences. We fight too much. Fighting costs us too much. Very recent statistics have shown what disposition our government makes of income taxes. As I take it, this will not concern many preachers, and it certainly has no meaning at all for teachers; but if there should be among my readers any lawyers or lathers, doctors, dentists, plasterers, or plumbers, they are entitled to whatever consolation they may be able to get from knowing that approximately 85 per cent of the income taxes they pay must be expended in defraying the cost of war. In this connection it would be interesting to know what proportion of the total amount of money raised for promoting religion among men is worse than wasted on popgun paper wads and poison gas that

we shoot at one another across imaginary religious fences.

The Age of the World

The human desire for full and free discussion is always commendable. So is real conviction on all life questions. So is the willingness to defend our convictions when the welfare of the world depends upon them. Our real problem is to know which of our convictions are worth fighting for. Men have not always known. We cannot in every case know to-day. If men are disposed to quarrel, it is not difficult to find or make a suitable occasion. One favorite subject of contention is the age of the world. By the way, just how old is the world? One thing absolutely certain is that the world was here when we came. Another that is highly probable is that it will be here when we go away. Now if one's peace of mind demands more definite information, he need not seek far or long. Very recently H. G. Wells in his *Outline of the World's*

History sets down the information that satisfies him. In quoting from Professor Osborn, he sets forth as the latest finding of science that the earth is at least four hundred million years old and that it may be one billion six hundred million years old. He may be right. I do not know. Another authority is Doctor John Lightfoot, one of the greatest biblical scholars of his time and Vice-Chancellor of Cambridge University in 1654. He declared that, as the result of all the investigation he had made, it was settled beyond question that "Heaven and Earth, center and circumference, were made in the same instant of time, on the 26th day of October, four thousand and four years before Christ, at nine o'clock in the morning." Some may prefer this statement. If so, it is their privilege. As for myself, I will not fight over it, but I rest with a third statement, which is older, better known, and in my judgment more authentic than either of the others. It is not quite so definite, but

I do not remember ever to have heard its accuracy called in question. Those who care to look it up will find it in the first chapter of Genesis. It says that heaven and earth were made "in the beginning."

The Reign of Law

A question over which there has been a large amount of contention is that of law. The difference of opinion arises from a misconception of what law is. It is man's province and his privilege to discover the laws of nature, all of them if he can. There are those who look upon the study of nature as something vile or unclean. It is in reality a part, and not an unimportant part, of man's great commission. When we are commanded to

> Be fruitful, and multiply, and replenish the earth, and subdue it; and to have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth,

dominion by force is probably the least part of the task assigned. If by the iron heel of physical force we were able to put all these things under our control, we would not yet have subdued them, we would not yet have dominion over them. The subduing of nature and having dominion over it chiefly means understanding it, and this means understanding the laws according to which it acts. Throughout all time humanity's greatest benefactors have been those who have discovered laws and interpreted them to the rest of us.

There is prevalent a curious and foolish fallacy with reference to law. It is held alike by both the defenders and the defamers of religion. On the one hand, the narrow religious fanatic looks askance at the ever-widening realms of natural and biological science, foolishly fearing that if a thing comes about by law it is not of God; and that if man discovers the law, he and not God brings events to pass. It must be some such unconscious

or half-conscious assumption in the minds of uneducated Christian ministers that makes them so universally antagonistic to any and all effort in the direction of the discovery of natural law. There is no other way to account for it. But this is a fundamental error in thought. It is a grave misconception. *Law is not a cause.* It is only the way in which the cause works. The discoverer of a law is not a cause; he only finds out how the cause proceeds with its work. Only the power that establishes laws can be thought of as the cause of events coming to pass. Finding that events happen by law does not crowd out of them the power that established the law by which they happen. On the contrary, it deepens the divinity in which all things ultimately find their setting. Every criticism religion makes against science is an expression of the fallacy that the determination of the process of an event destroys its divinity. Any enlightened religious faith must hold that

God is as much the author of one truth as of another, — indeed that he is the author of all truth. Any exponent of religion that discourages the search after truth, any truth, does infinitely more harm than good. Religion itself is founded upon a great fundamental truth, which is never in danger of being contradicted by any other truth. The fear that the author of all truth did his work so poorly that some of it is in contradiction with the rest of it cannot be the basis of a very satisfactory religion. Such a fear is a superstition that vanishes in the light of clear thinking.

Discord Most Injurious to Youth

Most of us who are older have thought our way through. At least we are settled in our convictions whether we have thought them through or not. Youth are settling their convictions. They are thinking them through. They are not helped but hindered by magnifying the difference between what they work at through the week and

what we want them to work at on Sunday. The people our churches are most in need of to-day are the boys and girls of the high school and the young men and young women of the college. They cannot be obtained by an effort on Sunday to discredit what they learn through the week. Science is now taught in all the schools and religion in all the churches. It often happens that the same boy attends both. We are all doing our best to have it happen oftener. Now, a boy early discovers the futility of any unnecessary exertion. If he finds after a week in school and an hour in church that one or the other is on the wrong track, the most natural thing in the world for him to do is to make up his mind as to which one he shall drop. If occasionally a lack of agreement appears, a real friend to the boy will seek to remove it rather than parade it. And we may be sure that complete understanding will remove all disagreement. Sometimes a preacher in the

hope of purchasing a smile of approval from some saintly but silly sister of either sex will hint at an antagonism that in reality does not exist between science and religion, or will attempt to be humorous by ridiculing the teachings of our schools and colleges. At such a procedure the gay will sometimes laugh but the judicious will always grieve. The preacher of the gospel will serve his church better, he will serve himself better, he will serve the youth of his community better, by manifesting a sympathetic interest in the activity of the schools and by impressing upon us the assurance that the truth of science, all the truth of science, when we shall find out what it is, will be as much God's truth as are his own sermons, and that the two, when both are true, are never in danger of being out of harmony. School boys and school girls are more deeply impressed by a sermon that reinforces and corroborates and squares with what they have learned in their classes; and they

are more deeply impressed by their class lessons when they are able to see that some great sermon they have heard points in the same direction. No sermon that is worth hearing can ever contradict any science that is true enough to be taught.

Law Means Freedom

Probably the most deep-seated impulse in human life is the instinct to be free. The history of the human race is only the record of man's effort to achieve freedom. Error is bondage. Only understanding can set us free. Know the truth and the truth shall make you free, is a formula that has been handed down to us from high authority. To know a truth is to learn some law. The more laws we understand the more truth we know and the more freedom we enjoy.

Blame the Science Teacher

The same fallacy of looking upon law as a power that brings things to pass is

held by the pseudo-scientist. I remember distinctly an incident that occurred in the very beginning of my college life. A classmate older than I and better educated was reading a paper on law. I remember his words, for they made a deep impression on me. He said, "As boys in Sunday School we had to call on God to do everything that was done, but now we know that law does it." He had a glimpse of the far-reaching conception that the reign of law is universal, that everything that happens, whether it be the falling of a sparrow or the forming of a planet, happens by law. The law is often hidden from us, but it is law nevertheless. It impressed me then and it impresses me now. At that time, although I knew that something was wrong, I did not see clearly the fallacy that was misleading him. I do now. In seeing that all things occur according to law, he thought he was seeing that law was the power that caused them to occur. It is never anything of that kind. Science

must be entirely satisfied with our explanation of events when we state clearly the laws according to which they take place. Our religious demands, that is, our life's spiritual needs, are not satisfied with this explanation. They want something more. Religion demands that in addition to the law there must be also a power that established the law. When asked for its authority, Religion answers, the needs of life. These spiritual needs clamor as strongly for satisfaction as does the intellect for explanation. What is this power, over and under and in the world, that does all things that are done, makes all things that are made? The human intellect cannot know. Religion insists that it must be some form of personality. There is nothing to prevent us from calling it what we will, but most of the wise men of the world call that power God.

Misunderstanding Makes Us Quarrel

Or men may quarrel because they do not understand one another. Indeed this may easily be made to include all the causes of contention. What I think some one else means in using certain words may be quite different from the meaning intended. For illustration, some time ago in conversation with my pastor, a very able and intelligent gentleman, he quoted from a college professor the following sentence, and criticized it as being unorthodox. This is the sentence: "The Christian religion has its roots in human experience." To my thinking such a statement is altogether unobjectionable. It takes none of the divinity out of Christianity, but emphasizes, and rightly, the truth that Christianity, or for that matter any religion that is to do man any good, must fit into human experience. The Christian religion, no matter how divine in its origin, could not appeal to creatures incapable

of the kind of experience man has. The fact that it so admirably fits into man's experience is the strongest evidence of its superiority among the world's religions. So I should feel perfectly safe in saying that human experience is the only soil in which the Christian religion ever could have taken root; and in saying it or hearing it said, it would never occur to me that the author of the statement was raising the question as to the divinity of the hand that sowed the seed.

The Quarrel over Evolution

The one scientific theory that has been and is the chief cause of our differences is that of evolution. In brief, evolution is the theory or hypothesis that all living things grow gradually to what they are from small beginnings. More particularly it holds that no animal has always been what it now is but that every animal, including man, has risen to its present status by passing through and transcending

many lower forms or stages of life. Concerning almost all the living things we become acquainted with we know that evolution is not a theory, but a fact as well established as is the law of gravitation. And there is now but little if any objection to the theory that all the plants and all the lower animals now existing as well as all those now extinct, came from very simple beginnings, probably from single-celled organisms. The trouble arises when we attempt to include man in the same formula. With this the war begins. The battle is on. This like all other scientific questions will be settled by the facts as found and interpreted by the great masters in their respective fields. So far as possible we should keep our personal likes and dislikes entirely out of it. I say so far as possible, because it is probably not possible for some of us to lay aside all prejudice. There are those who have no particular preference as to whether man came about by evolution or in some other

way. And then there is a vastly larger number who are so bitterly opposed to evolution that they would almost prefer not to have come at all to having arrived in this way. These people are sincere. They understand that to accept evolution means to renounce their religion.

Let me try to state my own position. Suppose that the evolution a man holds as a scientist does contradict the religion that best satisfies the needs of his life. What shall he do? My answer is that it would be better to get along without the evolution. This answer I rest on the conviction that the religious consciousness not only asserts itself earlier in the race than the scientific, but is at every stage of development more fundamentally essential both for the welfare of the individual and for the preservation of the race.

Does Evolution Contradict Religion?

Now, does evolution contradict Religion? I answer that it depends altogether

upon the kind of religion and the brand of evolution. Unless the reader keep in mind my attitude toward this question, he will miss the message I wish to leave. So I must be allowed to state it again. Here it is: I am not posing as a champion of evolution. Only a scientist has a right to do that. Nor am I undertaking to disprove evolution. This also must be done, if it is to be done, by a scientist. My own position is that so far as it concerns religion, it makes absolutely no difference whether the hypothesis of evolution is true or false. There is no warfare, there never has been, there never can be, a warfare between truth and religion. Both are in the world, both are in the human mind, God made them both. He made truth when he made the world and established it in its myriad relations. He made religion when he made the human mind and planted in it a sense of reverence for and responsibility to its creator. So truth and religion cannot be in contradiction. Now, it is a little

different with science and theology. Science is what men think of truth, theology is what men think of religion. These, of course, can quarrel.

Here as almost everywhere our salvation lies in right thinking. Wrong thinking is at the bottom of whatever controversy exists between religion and evolution. It is absolutely unthinkable that there should be a conflict between true science and the essentials of religion. Whenever one comes upon a disagreement between what he thinks to be science and what he believes to be religion, he may be sure that his science is not straight, or his religion is crooked, or they are both twisted.

The Question Stated

Debates upon the question of which is right, evolution or religion, are worse than a waste of time. They only deepen the difference that already exists in the debaters' views. I do believe, however,

that much of the unreasoning animosity might be removed by a careful, conservative statement of each by a friend of both. It is said that Lincoln as a lawyer would state his case so clearly that but little argument was necessary. Such a statement of our question would be an invaluable contribution.

Most of us, I am sure, have heard the story of an old man unable to read receiving a letter from his son away at school and out of money. The letter was read to him by a man who had a big, rough voice and disliked the boy. When he had finished, the old father was raging and declared that so far as he was concerned the boy might starve. The mother too was unable to believe what she had heard, but requested that the letter might be read again by a woman who had boys of her own and was a friend to this particular boy. When she had finished reading the same words in a sympathetic tone, the old man was in tears, and said to his wife:

"Mother, whatever money we have, we'll send to our boy."

Now, the case is not entirely different with evolution's message to religion. When it is read by an avowed atheist who holds that science is all, that life needs nothing else, and that religion is an absurd and abnormal superstition whose only function in man's life is to retard his progress, then it cannot but offend those of us who hold that man is even more essentially religious than scientific. And there are some believers in this kind of evolution. Most of them are intellectually irresponsible and their statements should have no weight, and they do have no weight with any religious people that have weight.

As science in general was in the beginning the hand-maid of religion, so it may come about in the end that evolution in particular will be the hand-maid of religion. If it turns out to be true that the human organism is the product of evolution, it will be equally true that the mental life

has come about in the same way; for, as we now are, mental life develops with the organism. Then we shall see that religion itself, belief in God and immortality, is evolution's highest achievement. Religion then will appear as the supreme mental attitude that the struggle for existence has developed to make life worth living and to save the race from voluntary extinction. But if this vision is ever attained, evolution will still be, not a power that does things, but only the method or process used by the Power that does all things.

Did Man Come by Evolution?

Now, did man come about by evolution? I am sure I do not know. Do you? Mr. Bryan says not a single fact can be found proving the truth of it. I lay claim to no expert knowledge in this field; but I might have been willing to engage to find for Mr. Bryan sixteen facts pointing toward evolution for every one he might have been able to find pointing in

the opposite direction. While he might not have agreed with my results, I am sure he would have been pleased with the proposed ratio. The attitude and purpose previously stated would not justify me in bringing up for discussion here any of these facts, — facts of geology, facts of morphology, facts of embryology, with which those not already in possession of them may easily become acquainted.

But why should we as Christian people be so much more concerned with this question than we are with the question of whether the earth is round or flat? There was a time when this question did concern us as closely as evolution now does. The same was true of whether it was the earth or the sun that moved. The same dispute raged over whether comets moved by law in regular orbits or were miraculous manifestations as warnings to erring humanity. And in every case it was stoutly maintained by religious debaters that mighty consequences hinged upon the decisions, — that

unless it should turn out that the earth was flat, that the sun went round it every twenty-four hours, and that comets were miracles, then our faith would be gone. But all these questions have been answered in the other way and there is more faith in the world than ever before.

Two Objections to Evolution

There are just two reasons, only two, why some of us who hold to the Christian faith object to evolution. First, it is urged that the dignity of man is destroyed if we trace him back to a speck of protoplasm. On this point it seems to me that two things may be said. The first of these is that the dignity, the worth, of a man is not measured at all by whether his origin was low or high, but altogether by the progress he is making in achieving his destiny. Indeed, one may go so far as to say the higher the beginning the greater is man's discredit if he fails to achieve this destiny, and the more lowly his origin the

greater his credit if he does achieve it. Here I am using the phrase, achieving his destiny, merely to mean making out of himself the most he was capable of becoming. The second thing to be said on the point raised is, that whether the race did or did not come from a speck of protoplasm it is absolutely certain that every individual of the race did. I did. You did. I see no reason why we should be more concerned about the origin of our race than about the origin of ourselves.

Who Are Our Ancestors?

After all, are we not a bit inclined to be over-sensitive about our racial relatives? Our ancestors are so numerous it would be too much to ask us to assume responsibility for all of them. Let us look them over for only a brief period of eleven generations and note the number. Instead of using the expressions "great," "great-great," etc., for our grand-parents, to make it less confusing let us speak of our parents,

our first grand-parents, our second grand-parents, and so on. Every one of us has had 2 parents, 4 first grand-parents, 8 second grand-parents, 16 third grand-parents, 32 fourth grand-parents, 64 fifth grand-parents, 128 sixth grand-parents, 256 seventh grand-parents, 512 eighth grand-parents, 1024 ninth grand-parents, and 2048 tenth grand-parents. Adding these, we have 4094 ancestors in the brief span of eleven generations of them, and nothing is more certain than that the blood of them all is in us. Mr. Bryan rejoiced that there was no monkey blood in his ancestral line. Well, how sure could he have been that there was not other blood that he could not have been any too proud of? I remember once to have heard General George H. Sheridan say that after being asked so many times whether he was related to General Phil Sheridan, he began to look the matter up. He says that he had not traced his ancestors back very far till he found that eleven of them

had been hanged on one tree. Well, I imagine some are ready to say, "No eleven ancestors of mine were ever hanged." Possibly that is true, but I doubt whether any of us can be absolutely certain that more than eleven of his ancestors did not deserve to be hanged. Unless times have changed they might easily have been acquitted on the plea of insanity. As has been said, there is almost universal acceptance of evolution so far as it pertains to everything below man. We hesitate only when we come to apply it to man himself. Our ancestral pride is shocked by the hint that somewhere back in the line there might be a sub-human relative that would lower our social standing. But it is claimed by science that man separated from the anthropoid branch something like two million years ago, and it is highly probable that in less than two million years almost any of us could find in our ancestral line a human relative who would not raise our social standing.

Evolution and the Bible

The other objection to evolution is that it contradicts the Bible. Does it? Most of the great preachers of to-day are telling us that the Bible is a textbook not upon science but upon human life and life's relations, that its meaning, its message, is spiritual. Now, if evolution does contradict any spiritual message of the Bible, any message necessary to the strengthening and the enrichment of man's life, then evolution is an enemy of the human race, and contains nothing promising to us even as a theory or topic of speculation. So far as I know, evolution has absolutely no connection with any spiritual message of the Bible. The really great religious teachers of all ages have understood clearly that the Bible was never intended to be our authority on science. Something like fifteen hundred years ago, St. Augustine in trying to show how separate and distinct are the two fields, the natural and the spiritual, said:

"It very often happens that there is some question as to the earth or the sky, or the other elements of this world . . . respecting which one who is not a Christian has knowledge derived from most certain reasoning or observation: and it is very disgraceful and mischievous, and of all things to be carefully avoided, that a Christian, speaking of such matters as being according to the Christian scriptures, should be heard by an unbeliever talking such nonsense that the unbeliever, perceiving him to be as wide from the mark as east from west, can hardly restrain himself from laughing."

But evolution, and science in general, is popularly supposed to be out of harmony with the first chapter of Genesis. Is it? To my thinking, the best brief exposition of modern science in general and of evolution in particular that has yet been printed is the first chapter of Genesis. For the purpose of noting the corroboration of one by the other let us for a moment think of them together:

Science tells us that the first matter was a homogeneous, orderless, chaotic mass;

The Bible says the earth was without form and void, and darkness was everywhere.

Science and philosophy declare that mind, thought, spirit, is the only power that can bring order out of chaos;

The Bible says that the spirit of God moved upon the darkness, and there was light.

Science says that in the coming of life, the vegetable preceded the animal;

By the Bible account, the first life that God spoke into existence was a blade of grass and the next was a fruit tree.

Science teaches that the earth must long have been rich in vegetation before the first animals came;

The Bible says that at the end of the fourth day no animal was in existence.

Science teaches that the small animals preceded the large ones and were water animals;

By the Bible account, on the morning of the fifth day, when no animal was yet in

existence, God said "Let the waters bring forth abundantly the moving creatures that hath life," and later he created the great whale and the cattle and the beasts.

Science teaches us that things came not all at once, instantaneously and by fiat, but in the course of time, each in its particular order;

The Bible takes particular pains to emphasize creation as a prolonged, progressive movement extending over "days," or cycles of time, and with the different classes of things appearing in their respective days.

Science tells us that the last, the climax, of creation was man;

The Bible says the same words.

Science tells us, although it does not yet know how or why, that in this progressive, creative movement all things are tending toward the good;

The first chapter of Genesis repeats over and over, and closes with the words, "And it was good."

In fact, after many readings of this wonderful chapter, I am unable to put my finger upon a line or a word that contradicts progressive creation. And as for the beginning of all of it, the meaning of all of it, the cause of all of it, science can give no account of it. Science is at the end of its explanation. But the Bible's answer, religion's answer, is contained in the first four words of the Book of Genesis.

That the Bible as a whole was intended to be a scientific textbook or that we should so regard it, is no part of my contention. Since the first chapter of Genesis has so often been asserted to be in conflict with science in general and with the theory of evolution in particular, the purpose of the paragraph this sentence finishes is to show that instead of a conflict there is an amazing agreement.

In the Beginning God

Everything and every stage of everything can be traced back to an antecedent

thing or stage till we come to the first one. Then if we ask another question, science is obliged to say it does not know, but religion answers, "In the beginning God." Take for illustration our solar system with the sun as its center and the planets revolving majestically around it. How does it all come to be? In the first place there was one great mass of cosmic substance that in some way began to rotate. What started the rotation? It had to come from its antecedent stage, and that in turn from another, until finally we come to one that we must call the beginning. What force placed in it the possibility of our world? Science has no answer, but religion says, "In the beginning God." Or take the larger world system, the universe. Let us explain it. We are told that every tiny starlet in the milky way is a sun probably larger than ours, the center of a system as complex as ours. Where did all these worlds come from? Who hung them in space? Who placed them in a

balance that millions of centuries have not disturbed? Who marked out their paths? Who laid down their law and fixed the conditions under which it works? Science is silent, but religion thunders, "In the beginning God." Or if we wish we may go down instead of up. We are told that the sun and the solar system and all the world of systems and all the system of worlds are to be accounted for by the molecules that make them up. What is a molecule? It is only the atoms that compose it. And an atom? It is another system, quite as complicated as our solar system having a sun or center around which miniature planets, the little electrons, fly with the speed of light, 186,000 miles per second. Who poised the electrons to make an atom, the atoms to make a molecule, the molecules to make our worlds, and the worlds to make the universe? Science does not know; but religion whispers, "In the beginning God." Or suppose we wish to explain human life by

the plausible and far-reaching hypothesis of evolution. Where did man come from? Possibly from some higher apes. How do we account for them? They in turn came from lower forms of life which in turn sprang from birds and reptiles, and so we may go on back to the ameba, the lowest form of animal life. Where did the ameba come from? Some have dared to guess that it came from some form of vegetable life which in turn was from inorganic matter. Even such a conception does not wreck our faith. The question remains. Who put into the star-dust the potentiality of an ameba and into the ameba the possibility of man? Again science disclaims all knowledge; but religion declares, "In the beginning God."

Science certainly has a right to be proud of its achievements, but not too proud. For all the hidden forces of nature it has discovered and turned to man's use we owe it our everlasting gratitude. But science has never been able either to create a force

EAST ANAHEIM STREET
LONG BEACH, CALIFORNIA

or to tell whence it came. All the marvelous mechanism made by man has never been able to call into existence a single ounce of energy. Electricity lay sleeping in the atoms millions of ages before Edison and Marconi were born. While the ancient Egyptians were wending their way through dark alleys, electricity was asleep in the atoms under their feet and over their heads. How came it there? Science has no answer. Religion whispers, "In the beginning God."

Nor do I remember anything in the lessons of the Great Teacher that disproves evolution. If he were upon the earth to-day he would probably speak as he did speak when he gave us the all-inclusive formula, "First the blade, then the ear, after that the full corn in the ear." Certain it is that he himself came about in this way. He was first an infant, then a youth, and finally a mature man.

Our greatest religious teachers have seen no conflict between our religious faith and

the theory of progressive creation. John Wesley, the founder of one of our greatest Protestant churches, must be conceded to have been a Christian in good standing; and he also thought seriously on scientific questions. He wrote a Compendium of Natural Philosophy. In his chapter on "A General View of the Gradual Progression of Beings," he has some words that raise the question of the orthodoxy of a lesser man. He speaks of "the ostrich with the feet of a goat which unites birds to quadrupeds." He goes on to ask,

> "By what degrees does Nature raise herself to man? . . . How will she rectify this head that is always inclined toward earth? How change these paws into flexible arms? What method will she make use of to transform these crooked feet into skillful and supple hands? . . . The ape is this rough draft of man, this rude sketch, an imperfect representation which nevertheless bears a resemblance to him, and is the last creature that serves to display the admirable progression of the works of God. . . . But mankind have their gradations as

well as other productions of our globe. There is a prodigious number of continued links between the most perfect man and the ape."

In His Image

As Mr. Bryan, down to the very hour of his death, was the spokesman of the group opposing science on the ground of its opposition to Genesis, I am referring more often to him than to others. Both in his book and in his public addresses, Mr. Bryan's chief objection to evolution is Genesis 1, 27. It reads, "God created man in his own image, in the image of God created he him." Mr. Bryan holds that no one can question this statement without rejecting the Bible account of creation. I heartily agree with him. I wish my readers to agree with him.

Sometime ago a young girl came into my office and said, "You believe that man came about by evolution, do you not?" I answered, "Well, yes, I think such a thing might not have been impossible." She

said, "And you believe the Bible do you not?" I answered, "Yes, I do." "Then," she said, "what do you do with the Bible declaration that 'God created man in his own image'?" Well, what shall we do with it? My answer is, Keep it and believe it. What was the girl's difficulty? It was to understand what is meant by "the image of God?" What is it? First, what is it not?

The gods of the ancient Greeks were men in every respect except that they were larger and stronger and swifter. They had their home on Mount Olympus. When they walked, the ground shook for miles around. Zeus ruled them all. When the great Zeus even spoke, all Olympus trembled. When he only shook his locks or raised his awful eyebrows, the sound was like that of distant thunder. Five hundred years before Christ, Phidias made of ivory and gold his famous statue of Zeus, sixty feet high. This was the prevalent conception of the image of God

among the most superstitious of the Greeks. It should not be the conception in our twentieth century civilization. It was not the conception of the most intelligent Greeks. Plato and Aristotle did not believe it. Socrates did not believe it. Only a few hours before his death, Socrates said to his murderers, "You may kill this body but you cannot kill Socrates." He meant that the real Socrates was not head and hands and feet, but something else. Whatever that something else is is what is meant by "the image of God." The Bible tells us that "God is a spirit." How then may we think of man being in the image of God? Not in the old superstitious, medieval, anthropomorphic, materialistic conception of being like him in physical body; but rather in the conception that God is a spirit, and that man is essentially not body but spirit. The image really meant is a spiritual image, which is in complete accord with all that evolution claims.

This interpretation, which it seems to me is the only one intelligence can rest with, enables me to tell you a little more definitely when and where man was created: Sometime, somewhere, away back in the dim distance of the past, in the rising tide of the stream of life, which God himself had called forth, he commanded to appear also consciousness, mind, thought, spirit. Then and there man was born, and he was born in the image of his creator. This statement is made on the commonly accepted evolutionary theory that mind appeared when life had sufficiently developed to be ready for it. Only a slight modification of the statement would be necessary if we should accept the theory strongly maintained by Professor C. Lloyd Morgan of London, in a recent book entitled *Life, Mind and Spirit.* Here Morgan does not allow that mind emerges at any point in the evolution of life, but holds that it is synchronous with life. He contends for the "unrestricted con-

comitance of life and mind." This means that no matter how high or how low we go in the scale, wherever there is life there is mind. Mind, of course, is in the statesman and the philosopher; it is also in the animal and according to Morgan in the plant, even in the fertilized ovum, even in processes of cell-division. In short, mind is co-terminus with life. In this new theory, which centuries ago had been anticipated by the poets, Morgan denies that mind emerges at any point in the stream of life, for mind he holds was in the beginning with life. He does allow that all along the course of this life-mind stream new and higher forms of mental activity do emerge to make life richer and give it more meaning. So mind, like the Master, came that we might have life, and life more abundantly.

But this new scientific theory, which Lloyd Morgan bases directly upon facts that evidence life and facts that evidence mind, in no way opposes the working of

Divine Purpose in the universe. Whether life and mind appeared simultaneously or at different times, whether they appeared at the beginning or later, they are here and nothing that science knows can account for them. There is no new thing for us to say about their origin. We must continue to say the old thing. They came from God.

This theory of the progressive appearances of higher and higher forms of mental activity enables us to have two views of the making of man: For the original speck or spark of life-mind that in the beginning made it possible for man ultimately to be, we must look to God. He made us. But in the sense that every higher form of mental activity enables us to make better adjustments, to see more meaning, to enrich life, man is yet in the making because life is in the making, and that is because mind is in the making. When shall we be finished? Who can tell?

Religion's Real Enemy

The real enemy of religion is the mediocrity of its ministers. Not all mediocrity is in the ministry, but there is an abundance of it, and here is where it works the greatest mischief. Not all the ministry is mediocre. Many of our preachers are intellectual giants, men of scholarship and broad culture, but there are not enough of them for the good of the rest of us. The statement made above must not be taken as a criticism on the ministry or to imply that it has a monopoly on mediocrity. It is intended merely to express an unfavorable condition that actually exists and for which we must find a remedy. Even if we admit that as large a proportion of teachers, lawyers, doctors, editors, business men, and law makers are mediocre, — and we are probably obliged to admit it, — still we are safe in contending that, great as all these professions are, low intelligence and illiteracy in them does infinitely less

harm than in the ministry. Mediocrity everywhere is a handicap, but in the ministry it is a menace. I happen to know that college students are hungry for spiritual messages, real sermons that will stimulate ideals and challenge thought, and I take it to be just as true of young people not in college. But they certainly do not like the noisy, spectacular performance offered to them by some misguided ministers who for some reason feel that their most pressing obligation is to entertain. Yes, most young people do like it, but do not like it in a church service. When they want entertainment, they know better than any preacher where to find it. When they go to church, they want a sermon, not one too long, but a sermon. An impressive, uplifting spiritual message, a calm, quiet, beautiful, worshipful church service, a real sermon, not a lecture or an essay or an oration or a book-review, but a real sermon, pointed and powerful, logical and lucid, illuminating but not

spectacular, engaging but not entertaining, interesting but not funny, free from all clap-trap and clownishness and vaudeville, — this is the very thing that sinful humanity most needs and it is the very thing that most of the time we miss when we attend a religious service, particularly if it happens to be a revival service. The unprepared or ill-prepared preacher does a thousand times more injury to religion than does wrong science teaching, which sooner or later is bound to right itself. Most of the time, I think, the preacher's interest in science and his sympathetic attitude toward the science that is taught in the schools will make the strongest appeal for the youth's interest in his sermons. This will do more good and will enable him to do more good than all the heat his antagonism can develop.

The Science Teacher's Error

The wrath of some of our preachers against evolution is not altogether unpro-

voked. We still have in our colleges a few science teachers who seem to be setting forth evolution as a power that science proposes to substitute for God. Evolution is nothing of the kind. It is not a power that can make anything. If evolution is true, it is only the process in which the power back of it and under it and over it and in it does whatever is done, makes whatever is made. You and I call that power God. No wise man, no congress of wise men, has ever been able to give a good reason for calling it anything else.

Evolution cannot do things. It is only the way in which they are done. Let us but get this thought straight in our minds and two very important results will follow. Science people will no longer think or talk as if evolution had taken the place of God in the world, and religious people will cease to be driven on by the foolish phobia of a process. Then all our differences will disappear. Science has no power to substitute for God. The friends of religion

need not be greatly wrought up over a process. Whether we are concerned with the explanation of facts or with things in the field of faith, we must keep in mind that evolution is not a power that can do things. For illustration permit me for a moment to use the word in its mathematical sense, the extraction of roots. Suppose a teacher should take his class into a school room where they might see spread out upon the blackboard all the equations necessary in the extraction of the *n*th root of a quantity. He might say to his students, "When you entered school, you thought in your ignorance that a mathematician solved such problems; now in your wisdom you see that evolution does it." On the face of it such an utterance appears so foolish that it is impossible. Yet it is identical with the biology teacher's declaration that evolution made man. The teacher has a right to say to his class, "When you entered school you had no idea of how the mathematician got the

answer. Now you know he did it by a mathematical process called evolution, or the extraction of roots." Whatever he says, he must not leave the mathematician out. Only a mathematician can get the answer to a mathematical problem. And in the same manner, the biologist has a perfect right to say to his classes, "While in our ignorance we had no idea of how God made man, now we have many reasons for believing that he did it by evolution, by bringing him up through lower forms of life, in which in the beginning he had placed the potentiality of the man that was ultimately to be." And he might even go on to say that probably the hypothesis of evolution will help us more than anything else to understand what God meant when he said that he made man out of the dust of the earth.

There have been teachers, I have myself heard them, who taught science as if in explaining the process by which man probably came upon the earth they were

arrogating to themselves, by their explanation, the credit that the centuries had given to God. This is a perfect parallel of another procedure: When a rooster mounts a railpile and lustily crows at his first sight of the morning sun, he doubtless thinks, — if he thinks, — that his climbing upon the railpile caused the sun to come up. But he is mistaken. There was a sun long before there were any roosters to crow. Likewise the law by which man came was established in nature by God himself when he created the world. As college teachers it is not only our privilege but it is our duty to find this law and explain it the best we can to our classes. But we must never forget that man owes his origin not to the explanations we make or to the discovery of laws or to the laws we discover, but only to the power that in the beginning established all laws.

A Divided Responsibility

As stated on another page, the responsibility for whatever injury has been done to the cause of religion by the misconception of evolution as a power instead of a process must be shared by those preachers and those science teachers who have preferred heat to light. If in my illustrations I have left the impression that there are any considerable number of preachers or science teachers guilty of this fallacy I have done injustice to both. There are not many, but there are a few, and these few are causing all our trouble. There are in the world to-day very few eminent preachers, if indeed there are any, who have any fears that the essentials of religion can be crowded out by the findings of science. And the death of Ernest Heckel a few years ago removed from the earth, so far as I know, the last great biologist who was outwardly and openly atheistic. Many eminent preachers accept evolution as the

most satisfactory formula for their biological thinking. Many of them accept it as a question practically settled. Others of them actively advocate the reasonableness of it. Also, many eminent scientists are devout Christians. Some of them passively accept Christianity as the settled requirement of their lives, while others of them speak and write of it as if they themselves were preachers.

Of all the apostles of the "scientific method," the doctors probably rank first. Some doctors are so devoted to their profession that they find no time for religion. But this is not true of doctors as a class, and is probably not true of the greatest of them. One of America's leading doctors, Professor Howard A. Kelley of Johns Hopkins University, says:

> I found long since that if I allowed the pressure of professional and worldly engagements to fill in every moment between rising and going to bed, the spirit would surely starve. So I have made a rule which I have since stuck to

in spite of many temptations, not to read or study anything but my Bible after the evening meal, and never to read any other book but the Bible on the Lord's day.

Robert Andrews Millikan, in his book, *Science and Life*, and in a marvelously clear and convincing chapter on this very subject, assigns himself the task of setting down the names of the five men who have made the largest contribution to science from 1650 to 1920. Certainly no one is better prepared to make the selection. Here is his list, Newton, Faraday, Maxwell, Kelvin, and Lord Raleigh. Without exception these men were devoutly religious. In the list of five of the world's greatest scientists, some would have included Louis Pasteur, and it is difficult for his biographer to know whether science or religion engaged the larger share of his attention. In the same connection, Doctor Millikan makes a list of eminent scientists now living, Dr. Charles D. Walcott, Henry Fairfield Osborn, Edwin G. Conklin, John C. Mer-

riam, Michael Pupin, John Coulter, A. A. and W. A. Noyes, James R. Angell, James A. Breasted, T. C. Chamberlin, and Dr. C. G. Abbot. All these men are high authority in their respective fields of science, and all of them are strongly religious. If any one of these men had been making the list, he would have placed Doctor Millikan himself near the head of it both for his scientific attainment and for his high Christian ideals.

The testimony of these eminent scientists as to what religion means to their lives could be matched, if space permitted, by a list of equally eminent clergymen who are in complete sympathy with modern science. This list would include David Swing and Talmadge of earlier times, and Herbert Willett, Howard Jensen, S. Parkes Cadman, Harry Emerson Fosdick, Bishop McDowell and Charles Clayton Morrison. No one can doubt the earnest sincerity of any of these men, and they are all in sympathy with science.

The Teacher's Obligation

I am a strong believer in and an advocate of freedom of thought, freedom of speech, and freedom of teaching. At the same time, there must be a limit somewhere. Now, since we look upon religion as an elemental aspect of the human mind and since our American civilization is founded upon Christianity as one of its corner-stones, or rather since Christianity is the warp and woof of our civilization, these facts should be kept in mind while we are selecting teachers of our public schools. While the constitution would not permit the state to fix a religious qualification of teachers, citizens acting in an individual capacity are not obliged to overlook it entirely in selecting the teachers of their children. What I am trying to get said is that, in view of the two propositions stated above with reference to religion and Christianity, if I were in authority I would employ no teacher for our public schools

who scoffs at religion in general or who opposes Christianity in particular, — unless the citizens of a community should demand such a teacher.

The Preacher's Responsibility

And then it is of transcendent importance that the men who fill the pulpits of America and of the world shall not make the mistake of telling boys and girls, young men and young women, that they must make up their minds whether they are to have science or the Bible. This suggestion of antagonism will drive the young people out of the churches. What can it avail if the preacher for thirty minutes on Sunday, — or even for an hour and a half, — ridicules what teachers explain, textbooks elaborate, and the scholarship of the world proclaims six days in the week and all the weeks of the year? The old woman with her broom could just as easily sweep back the sea as can the misguided enthusiasm of an uninformed

clergy withstand the onward march of modern science. The enemy of religion is the greatest enemy of the human race. Let us save religion for human life, for it is the spiritual possession that saves life from gross materialism. But let us not be so foolish as to think we can befriend religion by belittling science. The church needs boys, but every sermon that speaks disparagingly of science drives boys out of the churches. Make a boy believe that he can have only science or religion and not both, and too many times he will manage in some way to get along without religion.

Faith Lost in College

On every hand we are hearing expressed the regret that many times when young people go to college they lose the faith they took with them. Occasionally this does happen. Yes, we may say it often happens. Sometimes it is to be regretted. It is always regrettable when the thing lost is real faith. The explanation of the

change that comes over college students is double. In a few cases, I think not many, the change a student undergoes in his religious attitude when he enters college is due, as has been said, to erroneous science teaching in the college. Any science teacher responsible for this change, no matter how brilliant he may be, is injuring the students he teaches. He hurts them more than he helps them. He does more harm than good. The college could render a larger service with his position vacant. In a vast majority of cases, however, this loss of faith is, in my opinion, due to erroneous religious teaching before the student goes to college. This could easily be a change for the better instead of the worse. If, for illustration, in our misguided enthusiasm to help young people we teach them that their religious faith must be inseparably connected with a certain scientific theory, — is the earth round or flat, is it the earth or the sun that moves, are there spots on the

sun, is the atom divisible, is evolution true or false, how many angels can dance on the point of a needle, — then of course when they learn in college that the theory they held is unsound, there is nothing for them to do but to conclude that their faith also is unsound. This change is not a regrettable matter. The loss of a wrong faith is a gain. The only possible way to prepare the ground for a right faith is to get rid of a wrong one. If some one should contend that even a wrong religious faith is better than no faith at all, I would not be disposed to debate the proposition with him. I would still do everything possible to destroy a wrong faith, not for the sake of the destruction but for the construction of a right faith that is to follow. Faith is a growth as natural as understanding. No one can be driven or forced to believe. Very few come to have faith as a result of argument or debate. One in his normal mind is not made to have faith by sentimentally pleading with him to believe.

Let a student see the reasonableness of faith, that it is just as natural for him to be reverent as friendly, and there will be little danger of his losing a faith that is not entangled with doubtful theories. Students that go to college to develop their intellects are the ones most in need of a religious faith that will balance their lives. Such a faith the college should not take away, it should be strengthened by the college course. Let us teach that religious faith springs from our life's needs. It does not stand or fall with any particular scientific theory, — unless by wrong teaching or wrong preaching it has been inseparably coupled with that theory. Real religious faith, faith in the fatherhood of God and the brotherhood of man, is a spiritual need that has absolutely no connection with whether the earth is round or flat, whether it is the earth or the sun that moves, or whether God made man by evolution or in Mr. Bryan's way.

Not Either but Both

It is dangerous to declare that evolution and Christianity are mutually contradictory, that if one is true the other must be false. It is more dangerous to Christianity than to science. If later it should turn out that evolution is true, every one feeling obliged to accept it must feel equally obliged to reject Christianity. No such antagonism exists. Evolution is taught in all the schools and colleges as a hypothesis that is highly probable, but this gives no occasion for uneasiness. If evolution is false, science cannot save it; and if it is true theology cannot destroy it. May we not just here appropriate the advice of Gamaliel not to be over-much troubled? He goes on to say as if he were speaking on this very question, "If this counsel be of men, it will come to nought; but if it be of God, ye cannot overthrow it." The great danger in telling young men that they must choose between evolution and

the Bible is that some of them may believe it. We must not teach it or preach it. It is not true. If one chooses either and rejects the other, his life is permanently impoverished. One does not have to choose either. He may have both.

Is Evolution True?

Now, is evolution true or false? I am sure I do not know. I am not entitled to an opinion. I am not a scientist. That it is true is not my contention. That it is false is not my contention. My contention is that whether evolution turns out to be true or false will have absolutely no bearing on the essentials of our religion. I do know that there is in the whole world to-day not a single eminent biologist who rejects evolution. It is taught to students in nearly all the accredited colleges of the country. A large majority of the ablest preachers of America and of the world see in it nothing to contradict the essentials of the religion for which they stand.

Almost every great book that has been written in the last thirty years on science, philosophy, history, economics, sociology, government, or education has the assumption of evolution running through its pages. Certainly, that evolution is true is only a theory. But just as certainly, that evolution is not true, is only a theory. The great body of evidence available points toward the truth of it; and no fact of science or revelation has been set forth in contradiction of it.

All the way through his book Mr. Bryan tries to show that if evolution is true, the Bible account of man's creation is false; and that if the Bible is true, evolution is false. This is an error. The truth of either does not render the other false. The Bible says that God made man. Science knows nothing to contradict it. This is all that religion need be concerned about, and this certainly evolution does not presume to question. So long as the first four words of the first chapter of

Genesis are conceded, religion may safely rest its case. Allow me to repeat. Be clear on this one point and most of our differences will disappear: *Evolution is not a power. It can have no meaning as a power. It is only a method.* The question, "Did God make man or did evolution make him," is meaningless. The only sensible question that can arise is, "Did God make man by evolution or in some other way?" No matter which way the answer be given, no man's religion need be disturbed. God did it in either case. And his way, when we find out which it was, will be my way and it will be your way. Evolution holds that the creation of man was the climax of a gigantic series involving all forms of life. It does not pretend to say definitely when man was created. It does hold that man, like God, is essentially spirit, that he was created when he attained to the spiritual life, and that the spiritual life expresses itself in thought and religion. By this conception man has a kinship with all

forms of life that are, or ever have been, upon the earth, and may have come "from the dust of the earth." So long as it was God who breathed into him the breath of life, and since God himself has not seen fit to inform us, what does it matter to religion whether that breath came to him alone and in an instant of time or was blown to him across the endless centuries and through all lower forms of life?

What Question Is Settled?

A short time ago I said to a young woman in one of my classes, "Mary, I wish you would go to Indianapolis and hear my address on *Science and Religion*." She replied, "Well, I may go, but don't imagine that you can convince me." I am well aware that her state of mind is shared by many of my readers. Indeed, it is bound to be the state of mind of all readers who wrongly suppose that my purpose is to settle any particular scientific question or theory. But if I have suc-

ceeded in making it clear that I am not contending for or against any scientific question, but am contending that whatever may be the answer to such a question it cannot disturb our religion, then I am more hopeful that something has been settled. But suppose that I have not settled any questions, I have only discussed them. Even so, I am entitled to the consolation of knowing that it is better to have discussed a question without settling it than to have settled it without discussing it.

In Conflict with Ourselves

There is no such thing as a class of scientists and another class of religionists. On the contrary every man craves explanation and every man lives largely by faith. Every one of us is therefore both scientific and religious. Whatever of conflict there may be is not between me and some one else; it is between me and myself. It is due to the fact that my rational nature

is seeking to extend itself over the field that belongs to faith; or else it is due to the fact that my religious nature is seeking to substitute faith where fact and reason should rule. My problem is your problem, it is every man's problem, — the problem of thinking its proper limitations around each of these fields and then of rendering to science the things that belong to science and to religion the things that belong to God. Or, the problem as I am trying to state it is, how shall we hold fast to the faith of our fathers without burdening ourselves with their superstitions? Or, how may we cling to the old land-marks and at the same time teach our feet to tread new paths? Better understanding will be the solution of whatever problem there is. Science and religion, when properly understood, are mutual friends. They must be so regarded. The time must come, and the sooner the better, when in every pulpit in our land we shall preach respect and admiration for the

science that is taught in our schools and colleges, and from every school rostrum and every college desk we shall teach reverence for things that are sacred. He who can hasten this time will be a public benefactor. In the hope that this book may make some slight contribution in this direction, particularly among students and teachers, I am permitting it to go forth on its mission.

With All Our Getting

Now in a closing word, let us keep both science and religion. One represents thought, which gives to the world and to human life all the meaning they have. The other is our deepest feeling, in which is contained all the value or worth of the world. We need them both to enrich our civilization and to save humanity. Any one who injures either is the enemy of both. So long as we do not understand we may continue to quarrel; but the time will come, it must come, when the real scientist

will pray as he pries into the hidden forces of the atom or peers through space in his search for new worlds. And in that same time the real preacher will come to see, he must come to see, that these same hidden forces under his feet and over his head are as sacred as the Holy Scriptures from which he reads. Most of the warfare is one of words. We must see clearly the meaning of science and the meaning of religion. Then when we speak or write we must say what we mean. We cannot afford to quarrel over words. We may, without offense, speak as much as we please about evolution so long as we mean by it the process by which things may have come about. But when we mean the power that set the process going and guides and directs it, we must call it God. So long, then, as we are honest, so long as our motives are right, so long as we are earnestly striving for the truth, we are permitted to speak, —

Each in His Own Tongue

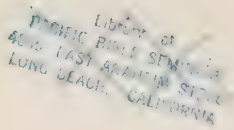
William H. Carruth

A Fire-mist and a planet, — a crystal and a cell, —
A jelly-fish and a saurian, and the caves where the cave men dwell;
Then a sense of law and beauty, and a face turned from the clod, —
Some call it Evolution, and others call it God.

A haze on the far horizon, the infinite, tender sky,
The ripe, rich tints of the cornfields, and the wild geese sailing high, —
And all over upland and lowland the charm of the goldenrod, —
Some of us call it Autumn, and others call it God.

Like tints on a crescent seabeach when the moon is new and thin,
Into our hearts high yearnings come welling and surging in, —
Come from the mystic ocean whose rim no foot has trod,
Some of us call it longing and others call it God.

A picket frozen on duty, — a mother starved
for her brood, —
Socrates drinking the hemlock, and Jesus on the
rood;
And millions who, humble and nameless, the
straight, hard pathway plod, —
Some call it consecration, and others call it God.



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